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FOR A FRAMEWORK CONVENTION ON CLIMATE CHANGE
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MATTERS RELATING TO COMMITMENTS

REVIEW OF INFORMATION BY THE CONFERENCE OF THE PARTIES: THE ROLES OF THE SUBSIDIARY BODIES ESTABLISHED BY THE CONVENTION

Note by the secretariat

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I. INTRODUCTION

1. The Committee, at its seventh session, requested Working Group I to consider, as appropriate, the roles of the subsidiary bodies established by the Convention when dealing with matters relating to commitments (A/AC.237/31, para. 50).

2. The present note is intended as a background to the Committee's discussions. It focuses on the roles of the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) in relation to the consideration of scientific and technical information by the Conference of the Parties (COP). In this context, the note analyses relevant linkages between the COP and these subsidiary bodies, as well as between these two bodies. Appropriate references to the roles of these subsidiary bodies are also made in the secretariat's documentation on the specific agenda items before Working Group I (A/AC.237/34, A/AC.237/35 and A/AC.237/36). The terms of reference of these bodies are reproduced in annex I.

3. Article 7.2(i) allows for the possibility of additional subsidiary bodies by providing that the COP may "establish such subsidiary bodies as are deemed necessary for the implementation of the Convention". This possibility is not explored in the present note.

4. In support of this note, information is provided in annex II on the treatment of scientific and technical information under the Montreal Protocol on Substances that Deplete the Ozone Layer, and on the Intergovernmental Panel on Climate Change (IPCC), established by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP). The process under the Montreal Protocol is considered to be a relevant example; the IPCC is named in the Convention as a source of scientific and technical advice in the context of the interim arrangements. 1/

II. CONVENTION PROVISIONS RELATING TO SCIENTIFIC AND TECHNICAL INFORMATION

5. The Convention makes several references, outside the terms of reference of the two subsidiary bodies, to the need for information of a scientific and technical nature to guide the COP in taking appropriate decisions regarding the implementation of the Convention and its possible future development.

6. A general reference to such a need occurs in the Preamble, which notes the "many uncertainties in predictions of climate change, particularly with regard to the timing, magnitude and regional patterns thereof", and further recognizes that "steps required to understand and address climate change will be environmentally, socially and economically most effective if they are based on relevant scientific, technical and economic considerations and continually re-evaluated in the light of new findings in these areas". General references also occur in other articles, for example, Article 4.1 and Article 7.

7. Article 4.2(c) refers specifically to the application of scientific knowledge to calculations of emissions by sources and removals by sinks of greenhouse gases, for purposes of communicating detailed information on the effects of measures taken in accordance with subparagraphs (a) and (b) of the same article by Parties included in Annex I. This subparagraph states that such calculations "should take into account the best available scientific knowledge, including of the effective capacity of sinks and the respective contributions of such gases to climate change." The methodologies for these calculations will also constitute a scientific input.

8. A further specific reference to scientific input occurs in Article 4.2(d) which requests the COP at its first session (COP I) to review the adequacy of Article 4.2(a) and (b). Article 4.2(d) states that "such review shall be carried out in the light of the best available scientific information and assessment on climate change and its impacts, as well as relevant technical, social and economic information."

9. Finally, Article 21.2 mandates the head of the interim secretariat to "cooperate closely with the Intergovernmental Panel on Climate Change to ensure that the Panel can respond to the need for objective scientific and technical advice", and provides that "other relevant scientific bodies could also be consulted."

III. THE ROLES OF THE SUBSIDIARY BODIES ESTABLISHED BY THE CONVENTION

10. From the above references, it appears that the negotiators of the Convention intended to base its future implementation and development, including that of any related instruments that might be agreed upon, on the best available understanding of climate change and its impacts, and on technical, social and economic information related to possible responses to climate change. Advice and recommendations by the subsidiary bodies, which are based on an evaluation of relevant scientific and technical information, will support the work of the COP and its decisions. Some ideas concerning the ways in which the two subsidiary bodies could provide such support to the COP are advanced in this section of the note. It is assumed throughout that the secretariat of the Convention will provide appropriate support and inputs to the subsidiary bodies in discharging their functions.

A. Subsidiary Body for Scientific and Technological Advice (SBSTA)

11. The SBSTA may assist the COP in its consideration of scientific and other information by examining such information and advising the COP how it relates to the implementation of the Convention and to the adequacy of its provisions. The COP could ask this body to formulate options for action by the COP, on the basis of information being reviewed. The SBSTA could also, under the guidance of the COP, formulate specific requests to be transmitted to competent scientific and technical bodies.

12. The SBSTA, in pursuance of Article 9.2(d), could also assist the COP in promoting the implementation of Article 5, on research and systematic observation, and Article 6, on education, training and public awareness.

B. Subsidiary Body for Implementation (SBI)

13. The role of the SBI is spelled out in Article 10 in relation to information communicated in accordance with Article 12.1 and 12.2. This body would seem to be most directly relevant to assisting the COP in carrying out the reviews called for in Article 4.2(b) and (d).

14. In this regard, the SBI might advise the secretariat how to compile and aggregate information communicated by the Parties on emissions and removals of greenhouse gases 2/ and on the effects of measures taken to reduce emissions or to enhance sinks of greenhouse gases. This advice would take into account information on methodologies provided through the SBSTA. A report containing such aggregated information would assist the SBI and the COP in the above-mentioned reviews. 3/

15. Moreover, the SBI could also advise on the treatment of confidential information in accordance with Article 12.9.

C. Linkages between SBSTA and SBI

16. Article 9.1 and 9.2(e) refers to a possible role for the SBSTA in providing advice to other subsidiary bodies of the Convention. Its relationship with the SBI needs to be considered carefully.

17. While Article 9.2(b) provides for the SBSTA to "prepare scientific assessments on the effects of measures taken in the implementation of the Convention", Article 10.2(a) provides for the SBI to "assess the overall aggregated effect of the steps taken by the Parties in the light of the latest scientific assessments concerning climate change". In order to avoid duplication, it may be considered that such scientific assessments should be provided to the SBI by the SBSTA.

18. Since it is unlikely that all States will be Parties by the time of COP I, and bearing in mind that developing country Parties will not be required to communicate information on emissions by that time, there will be a need for the SBI to estimate total global emissions. In this way, the COP will have as complete a perspective as possible for carrying out the review referred to in Article 4.2(d). Advice on technical options for such estimates will be needed for COP I and probably for subsequent sessions of the COP. Such advice may be provided by the SBSTA.

19. In considering the information communicated by developed country Parties in accordance with Article 12.2, the SBI might draw on the latest information regarding technologies for limiting emissions from sources or enhancing sinks of greenhouse gases and the relative feasibilities of such technologies in different circumstances, as provided through the assessments of the SBSTA.

D. Functions of the subsidiary bodies in relation to COP I

20. Most of the functions of the subsidiary bodies described above will be needed in relation to the reviews of communications and of the adequacy of commitments to be undertaken by COP I. It would also be useful for COP I to benefit from the advice of the SBSTA on the methodologies referred to in Article 4.2(c) and 4.2(d), as well as on the special report that the IPCC will prepare in 1994 for COP I and on the work of the IPCC leading to its Second

Assessment Report in 1995. Consequently, the Committee may wish to consider the best way of ensuring the performance of these functions of the subsidiary bodies in time to contribute to COP I. Different institutional options may be considered for this purpose under the auspices of the Committee or of the Convention.

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Notes

1/ Information on the Scientific and Technical Advisory Panel of the Global Environment Facility (GEF) is not included in annex II. It is currently expected that this body will be a source of general scientific and technical information related to the Convention. Its functions relating to the Convention are more likely to pertain to the approval of projects for funding under the GEF. For more information on the work of STAP, see document A/AC.237/26, para. 10, and Add. 1, sections B and D.

2/ Methodologies for inventories of emissions and removals are discussed in document A/AC.237/34.

3/ Preliminary thoughts on the design of the first review of information communicated by each Party in Annex I of the Convention are presented in document A/AC.237/36.

Annex I

TERMS OF REFERENCE OF THE SUBSIDIARY BODIES ESTABLISHED BY THE CONVENTION

Article 9

SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE

1. A subsidiary body for scientific and technological advice is hereby established to provide the Conference of the Parties and, as appropriate, its other subsidiary bodies with timely information and advice on scientific and technological matters relating to the Convention. This body shall be open to participation by all Parties and shall be multidisciplinary. It shall comprise government representatives competent in the relevant field of expertise. It shall report regularly to the Conference of the Parties on all aspects of its work.

2. Under the guidance of the Conference of the Parties, and drawing upon existing competent international bodies, this body shall:

(a) Provide assessments of the state of scientific knowledge relating to climate change and its effects;

(b) Prepare scientific assessments on the effects of measures taken in the implementation of the Convention;

(c) Identify innovative, efficient and state-of-the-art technologies and know-how and advise on the ways and means of promoting development and/or transferring such technologies;

(d) Provide advice on scientific programmes, international cooperation in research and development related to climate change, as well as on ways and means of supporting endogenous capacity-building in developing countries; and

(e) Respond to scientific, technological and methodological questions that the Conference of the Parties and its subsidiary bodies may put to the body.

3. The functions and terms of reference of this body may be further elaborated by the Conference of the Parties.

Article 10

SUBSIDIARY BODY FOR IMPLEMENTATION

1. A subsidiary body for implementation is hereby established to assist the Conference of the Parties in the assessment and review of the effective implementation of the Convention. This body shall be open to participation by all Parties and comprise government representatives who

are experts on matters related to climate change. It shall report regularly to the Conference of the Parties on all aspects of its work.

2. Under the guidance of the Conference of the Parties, this body shall:

(a) Consider the information communicated in accordance with Article 12, paragraph 1, to assess the overall aggregated effect of the steps taken by the Parties in the light of the latest scientific assessments concerning climate change;

(b) Consider the information communicated in accordance with Article 12, paragraph 2, in order to assist the Conference of the Parties in carrying out the reviews required by Article 4, paragraph 2(d); and

(c) Assist the Conference of the Parties, as appropriate, in the preparation and implementation of its decisions.

Annex II

NOTES ON THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER AND ON THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

A. The experience of the Montreal Protocol

1. A relevant example of the treatment of scientific and technical information is provided by the assessment process established under the Montreal Protocol on Substances that Deplete the Ozone Layer.

2. In this process, assessment panels prepare regular assessments on three areas related to depletion of the stratospheric ozone layer, namely, science, impacts, and technology and economics. These panels are open to participation by experts of all kinds, nominated by Parties or selected by the Co-Chairmen of the panels. Experts from industry and from environmental groups may be included; in fact, such non-governmental expertise is explicitly sought on questions of technology and economics.

3. A synthesis report then integrates the findings in the three areas mentioned above and translates these into policy issues. This synthesis report is prepared by governmental representatives or by the Co-Chairmen of the panels.

4. This report is then considered by an open-ended working group of technical and legal experts from the Parties as well as governmental and non-governmental observers; leading experts from the panels also participate. As a consequence of the recommendations by the working group, Parties to the Protocol may bring forward proposals for adjustment or amendment of the Protocol.

B. The role of the Intergovernmental Panel on Climate Change

5. The Preamble to the Convention refers to "valuable analytical work being conducted by many States on climate change and of the important contributions of the World Meteorological Organization, the United Nations Environment Programme and other organs, organizations and bodies of the United Nations system, as well as other international and intergovernmental bodies, to the exchange of results of scientific research and the coordination of research". Further, as specified in Article 7.2(l), the Conference of the Parties will "seek and utilize, where appropriate, the services and cooperation of, and information provided by, competent international organizations and intergovernmental and non-governmental bodies". As already noted, the SBSTA is to draw upon "existing competent international bodies" in its work. One such existing body is the IPCC, which, as stated in the introduction to this note, is explicitly mentioned in the context of the interim arrangements for the Convention. It may therefore be assumed that the IPCC will be a source of scientific and technical advice for COP I.

6. The IPCC was established in 1988 under the auspices of WMO and UNEP to provide assessments of the science and impacts of climate change and possible response strategies that

might be adopted by Governments, including legal agreements. The First Assessment Report of the IPCC was completed in August 1990 and provided a basis for the recommendations of the Second World Climate Conference in November 1990. It was taken into account by the United Nations General Assembly in adopting resolution 45/212 of 21 December 1990, which established the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change.

7. Participation in the IPCC is open to all States Members of the United Nations or of WMO, to relevant intergovernmental organizations and to a broad range of non-governmental representatives from industry, environmental groups and academic institutions that have expertise relevant to the work of the IPCC.

8. Since the establishment of the Committee, the IPCC has concentrated on scientific and technical questions (including technical aspects of economic questions). It has restructured its work programme accordingly. The three existing working groups of the IPCC deal with, respectively, science, impacts and response options, and the socio-economic aspects of mitigation and adaptation. These working groups are engaged in tasks that could provide appropriate background information to the COP, through the SBSTA, on the science and impacts of climate change, as well as technical and economic information on possible options to mitigate or to adapt to such climate change.

9. The Second Assessment Report of the IPCC is scheduled to be completed in September 1995, which will probably be too late for COP I. The IPCC has therefore decided to prepare a special report by autumn 1994 on a number of issues it considers of importance for COP I.

10. The Committee has not communicated specific requests for advice to the IPCC so far. In accordance with resolution 45/212 of the General Assembly and Article 21.2 of the Convention, the secretariat has maintained close contact with the IPCC. Recently, the Chairman of the IPCC and the Chairman of the Committee have exchanged letters (A/AC.237/29 and A/AC.237/30). The Chairman of the IPCC indicated the decision of the Panel to prepare by mid-1994, a special report on four scientific questions related to the short- and long-term effects of various substances on climate change, as well as on the Panel's current work on methodologies for the assessment of greenhouse gas sources and sinks. The latter will be of key importance to the COP in implementing Article 4.2(c) and Article 7.2(d). The Chairman of the Committee confirmed the importance of this work and requested the views of the IPCC on impacts of climate change and on the sensitivity of ecosystems to climate change, on scenarios of possible future emissions and removals of greenhouse gases, and on methodologies for the technical evaluation of information on measures to reduce emissions by sources or to enhance removals by sinks. This information is especially relevant to the implementation of Article 4.2(b) and (d), Article 12.1(a) and to the longer-term assessment of progress towards the objective of the Convention (Article 2).

11. The IPCC, at its ninth session, 29-30 June 1993, heard a statement by the Chairman of the Committee that, inter alia, explained his above-mentioned letter. The IPCC took these contributions by the Chairman of this Committee into account in reviewing its work plan. The Chairman of the IPCC will convey the detailed conclusions of the Panel in his statement to the eighth session of the Committee.

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MATTERS RELATING TO COMMITMENTS

METHODOLOGIES FOR CALCULATIONS/INVENTORIES OF EMISSIONS AND REMOVALS OF GREENHOUSE GASES

Note by the secretariat

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I. INTRODUCTION

A. Committee mandate

1. The work plan adopted by the Committee at its sixth session includes task A.1, "Methodologies for calculations/inventories of emissions and removals of greenhouse gases" (A/AC.237/24, para. 44). This task was assigned to Working Group I. It has further been decided by the Committee that Working Group I will take up this task at the eighth session of the Committee. In this decision, the Committee indicated that the discussion of the subject should include a review of information from the Intergovernmental Panel on Climate Change (IPCC) on the progress of relevant work and that consideration should be given to issues to be addressed by the Committee and the Conference of the Parties (COP) (A/AC.237/31, para. 49). On the same occasion, the Committee decided that the treatment of this subject should include appropriate consideration of the roles of the subsidiary bodies established by the Convention and may involve relevant matters raised in the exchange of letters between the Chairman of the IPCC and the Chairman of the Committee (see documents A/AC.237/29, A/AC.237/30 and A/AC.237/31, paras. 50 and 54).

B. Convention provisions

2. The development and communication of national inventories of greenhouse gases is a prominent feature of the Convention. This is a commitment undertaken by all Parties (see Articles 4.1(a) and 12.1(a)). The Convention specifies that these inventories are to be prepared using comparable methodologies to be agreed upon by the COP. Moreover, the COP is to promote and guide the development and periodic refinement of such methodologies (see Article 7.2(d)).

3. The first communications including national inventories are to be made by the Parties included in Annex I to the Convention within six months of the entry into force of the Convention. It may be estimated that these communications will be made during the second half of 1994. Consequently, the methodologies will be needed beforehand. The communication of inventories using these methodologies is to be related to the capacities of Parties to produce them and the initial communications by developing country Parties are subject to a different timetable. The frequency of subsequent communications is to be determined by the COP (Article 12.1(a) and 12.5).

C. The respective roles of the IPCC and the Conference of the Parties

4. The IPCC is identified in the Convention as a source of objective scientific and technical advice in the context of the interim arrangements (Article 21.2). The IPCC is working on a methodology for national inventories of greenhouse gases comprising both emissions and removals. 1/ The results of the IPCC Programme are expected to receive formal approval by the IPCC in mid-1994. Meanwhile, the Programme outputs are to be reviewed and are subject to modification.

5. The IPCC Programme is expected to result in a methodology, incorporating the best available scientific knowledge, that may be used by all Parties, including by those included in Annex I to the Convention in their communications to the Conference of the Parties at its first session (COP I). This Programme is the only systematic work on methodologies that is currently under way in the international community. Consequently, it is expected that the COP will wish to draw upon the results of the IPCC Programme in adopting comparable methodologies for inventories of greenhouse gases, at least for the initial phase of the implementation of the Convention.

6. The COP may also consider the possible role of the IPCC in the further development of inventory methodologies and decide how best to provide guidance to such development, taking into account the roles and competence of the subsidiary bodies established by the Convention.

D. Scope of the note by the secretariat

7. The intention of this note is to support a discussion on inventory methodologies in the Committee, along the lines indicated at its seventh session and as further elaborated above. The note is based on the presumption that the Committee will not wish to take up purely technical aspects of the approach being pursued by the IPCC Programme but will wish to focus on policy-related questions. This note has been prepared in consultation with the Chairman and the Secretary of the IPCC, drawing on inputs from the IPCC process and on publicly circulated materials emanating from that process. The main source materials are listed in annex I. In most cases, these are working documents and have not been formally reviewed or approved by the IPCC. This documentation is available for interested delegates, from the sources indicated in annex I. It will also be presented during the eighth session of the Committee, when delegates will have the opportunity of meeting IPCC experts.

8. The second section of this note consists of a progress report on the IPCC Programme that was provided to the secretariat by the Chairman of the IPCC for the information of the Committee at its eighth session. Section III contains comments by the secretariat on salient features of the IPCC Programme. Section IV comments on the possible roles of the subsidiary bodies established by the Convention in relation to inventory methodologies. Section V puts forward certain questions which it may be useful for the Committee to consider as a prelude to reaching conclusions that might be fed back to the IPCC. 2/

E. Possible action by the Committee

9. It is suggested that the Committee, in dealing with this task at its eighth session, may wish to take note of the report by the Chairman of the IPCC on the progress of the IPCC Programme on inventory methodologies and consider what contribution it might make to the orientation of this work, so that the results may correspond as closely as possible to the requirements of the Convention. The Committee may also address policy questions that are not adequately dealt with in the current IPCC Programme.

10. Furthermore, in pursuing this task at future sessions, the Committee may be able to provide advice to the COP concerning the organization of work on the further development of inventory methodologies.

II. PROGRESS REPORT BY THE CHAIRMAN OF THE IPCC 3/

A. Anthropogenic emissions and removals in the context of the global cycles

11. Before describing the present status of the work of the IPCC on developing a comparable methodology or methodologies for the compilation of national inventories of emissions and removals, it is important to view this work in its broader context. The work is being carried out by the science working group (Working Group I) of the IPCC in collaboration with the Organisation for Economic Co-operation and Development (OECD) and is based on the latter's preliminary efforts.

12. Increases in concentrations of greenhouse gases in the atmosphere depend on their net emissions, that is, the difference between emissions and removals, occurring either naturally or due to human intervention. The removal is by sinks but not all of these are covered by national inventories, for example, one of the sinks is photochemical dissociation for some greenhouse gases (methane, nitrous oxide, ozone and chlorofluorocarbons). The direct emissions from industry, traffic, etc., are comparably easy to assess. Human-induced emissions and removals due to agriculture, forestry, changing land-use, etc., are difficult to estimate and also often not easy to separate from what would be occurring if man were not interfering. The development of comparable methodologies for assessing human-induced emissions and removals is a complex and difficult undertaking.

13. In addition, an analysis of past increases and estimates of future increases of atmospheric greenhouse gas concentrations requires the consideration of all processes that are both natural and human-induced. Such analyses are essential in order to judge the adequacy of the methodologies being developed. The Chairman of the IPCC, in his presentations to the Committee, has repeatedly emphasized the difficulties inherent in this task and has pointed out that until the observed increase of carbon dioxide in the atmosphere can be reconciled with estimates of its emissions by sources and removals by sinks, estimates of human-induced CO_2 emissions must be considered incomplete.

14. This situation is the reason why the IPCC is proceeding carefully and wishes to analyse the first round of data that the IPCC methodology will yield, as well as checking on the overall consistency of the data against the best knowledge of the biogeochemical cycles that regulate the atmospheric concentrations of greenhouse gases. This analysis will begin later in 1993 and perhaps lead to a workshop in February or March 1994. It is hoped that this will permit the calculation of uncertainties of the estimates of emissions and removals and thereby provide solid ground for the use of such data by the COP.

B. Background

15. Around the time of the Second World Climate Conference (Geneva, 1990), it was becoming evident that a standard methodology for the compilation of national emissions inventories was likely to be required under a future climate convention. Under the auspices of the OECD and the International Energy Agency (IEA), an initial compendium of methods covering all greenhouse gases (except those which are dealt with under the Montreal Protocol on Substances that Deplete the Ozone Layer) was compiled. This document was discussed in depth at a meeting of experts including representatives of many non-OECD countries, held in Paris in February, 1991. In a slightly modified form this document, known as "the draft methodology" was subsequently adopted by the fifth session of the IPCC (Geneva, March 1991), as the starting point for the IPCC guidelines for the compilation of national inventories of greenhouse gas emissions and removals.

C. The IPCC Programme

16. Responsibility for furthering the development of the methodology was given to Working Group I of the IPCC, with assistance from OECD and IEA. The overall objectives of this programme are:

(a) to develop and refine an internationally agreed default methodology for calculating and reporting national emissions and removals, namely, a methodology that is easy to use and available to any country that wishes to use it;

(b) to promote widespread use of the methodology by IPCC member countries, through various technical cooperation activities; and

(c) to establish procedures and a data management system for the collection, review and reporting of national data.

17. The chief tool for improvement of individual calculation procedures is the expert group. Each group deals with a specific gas and source category (such as methane from coal mining) and its members are drawn from as wide a geographical range of experts as possible. Each calculation procedure specifies the functional form for a calculation, but particular values of "activity data" and "emission factors" need to be specified by the user. Default values (that is, simple values in the absence of detailed information) of factors for emissions or removals which are relevant to the country or region are being improved using outputs from expert groups, as well as from country studies and regional workshops.

18. Recognizing that inventories are of removals as well as emissions, a letter has recently been circulated to all IPCC countries requesting help in the identification of human-influenced sinks that might be included in the methodology.

19. Every effort has been made to involve as many IPCC countries as possible in every stage of the IPCC Programme. Immediately following the decision of the fifth session of the IPCC to develop the guidelines, all IPCC countries were formally requested to submit any inventory information which they had available, irrespective of the methodology used. The purpose of this exercise was to gain an overall picture of the status of the inventory work in different countries. Over 30 countries so far have submitted such information.

20. Representatives of 41 countries (and 12 intergovernmental and non-governmental organizations) attended a workshop at Geneva in December 1991 to discuss and suggest improvements to the draft methodology. The workshop, inter alia, recommended that the presentation of the method needed to be simplified, and as a result, the IPCC guidelines will appear in two forms: a simplified workbook (containing all available software modules) and a reference manual. Using the simplified workbook alone, it will be possible to compile a national inventory. The reference manual will contain detailed background information and a bibliography so that, for example, the origin of a particular emission factor can be traced.

21. All IPCC countries have been asked to nominate a technical point of contact for inventory studies. These points of contact have been used to review draft material; for example, a prototype software package for calculating CO_2 emissions from energy was circulated to national IPCC technical contacts and their comments used in revising the software. Some national technical points of contact have also contributed to expert groups convened to consider specific methodologies (for example, CO_2 from land-use change) and to recommend improvements.

22. The IPCC and OECD are cooperating with the United Nations Environment Programme in its programme of country studies in 11 developing countries: Costa Rica, Venezuela, Poland, Uganda, Tanzania, the Gambia, Senegal, Morocco, Nigeria, Mexico and China. These studies, the outcome of which will be national inventories prepared according to the draft IPCC method, will help build national capacity in inventory compilation and provide field tests of the methodology which will lead to its further improvement.

23. The IPCC has maintained close links with the current "Regional Study on Global Environmental Issues" of the Asian Development Bank which involves eight countries in Asia and the Pacific region. A component of these country studies has been a compilation of a preliminary national inventory, that in many cases uses the draft IPCC methodology as the default methodology.

24. In order to further promote a two-way exchange of information, the IPCC Programme contemplates, funds permitting, a series of regional training workshops at which national representatives can receive detailed instructions and gain experience in the use of the draft methodology. In this context, a workshop was held in Sao Paulo (Brazil) in March 1993. Feedback from these workshops is used to further improve both the draft methodology and associated training material.

D. Important features of the IPCC Programme

25. The guidelines offer a default methodology, available to any country that wishes to use it. Countries which already have an established and comparable methodology are expected to continue to use their own, and an important component of the IPCC Programme is the establishment of correspondence between the IPCC method and other existing methods. The guidelines will include a section on reporting recommendations which will describe the additional, supporting documentation that should accompany a national inventory.

26. As part of the Programme, detailed specifications are being drawn up for a central database for the collection, management and reporting of national inventories. The main purpose of the system as far as the IPCC is concerned is to improve the inventory methodologies by enabling comparison of the detailed national estimates ("bottom-up") with global or regional ("top-down") estimates derived independently. Furthermore, the system aims to ensure comparability and transparency of inventories.

E. Current status and future events

27. Work has begun on the layout and technical editing of the simplified workbook. Editing of the workbook is scheduled to be completed in September 1993; subsequent printing and translation depend upon the availability of funds. The reference manual should be edited in parallel with the workbook, but again, this work has not started owing to lack of funds. If adequate funds become available, then both the draft workbook and reference manual could be ready for widespread review by the end of 1993. Further regional training workshops are planned for Central and Eastern Europe (September or October 1993), for Asia (to be conducted with the United Nations Development Programme and its proposed series of country studies) and Africa (dates and places to be decided).

28. A presentation of the IPCC Programme and methodology will be given during the eighth session of the Committee.

III. OBSERVATIONS OF THE SECRETARIAT ON FEATURES OF THE IPCC PROGRAMME

A. Categories of sources and sinks

29. The heart of the inventory methodology lies in the reporting of estimates of emissions and removals of particular gases according to specifically designed source and sink categories. One of the criteria for designing inventories is that these should provide countries with a basis for developing policies and measures, and for reporting on their effects, in relation to Article 4.1 of the Convention; thus they should allow for the identification of sectors including energy, transport, industry, agriculture, forestry and waste management. The list reproduced in annex II is proposed by the IPCC in response to this requirement. It has not yet been formally adopted. The list does not show all existing subdivisions of categories: further subdivisions may occur, as appropriate.

30. As noted earlier, Parties to the Convention are to communicate inventories to the extent their capacities permit. The use of categories of sources and sinks provides a means of addressing this concern since it allows a country to report emission estimates at different levels of source category aggregation, depending on its capabilities and the availability of data. Additional groupings to those proposed by the IPCC methodology may be used, provided they are adequately defined and described, and demonstrably compatible with the basic structure of categories of sources and sinks.

B. Reporting recommendations by the IPCC

31. As recommended by the IPCC, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), carbon monoxide (CO), nitrogen oxides (NO_x) and non-methane volatile organic compounds (NMVOC) should be included in national inventories. 4/

32. The year 1988 was initially chosen as the "common" reporting year for which inventories should be developed because of the availability of data in countries. For forestry and agricultural activities, it is recommended to use a three-year average, and to acknowledge fluctuations from year to year due to economic, climatic or other variables wherever annual values are required. Countries that may have experienced extraordinary circumstances of any nature that affected emissions during that year are invited to report accordingly and provide estimates for proximate years. Now, however, in view of Article 4.2(b) of the Convention, the IPCC has sent a letter to Governments encouraging them to supply inventories for 1990, and indeed several countries had already done so.

33. It should be noted in this regard that Article 4.6 of the Convention provides for the COP to allow Parties included in Annex I undergoing the process of transition to a market economy a certain degree of flexibility in their implementation of Article 4.2. This provision envisages flexibility with regard to the base year for establishing a reference for emission levels.

34. Comparability and transparency depend on the availability of thorough documentation on the statistics and methods used, and definitions of specified activities, as well as other relevant assumptions. Any difference in methods and assumptions from those of the IPCC default method should be described.

C. Methodologies

35. All the methods developed for estimating sources and sinks from the categories as indicated in annex II still present important technical and scientific difficulties, which are being addressed by the IPCC. In this regard, the current situation may be summarized as follows:

(1) for some categories, advanced methods and good data leading to satisfactory results are available (for example, when calculating CO_2 emissions from fuel combustion);

(2) for other categories, although good methods are available, lack of, or uncertain, data leads to a lesser degree of confidence in results (for example, when calculating emissions from many CH_4 sources);

(3) for the remaining categories, a scientific basis is not yet available to define methodologies with confidence (for example, for calculating N_2O emissions from soils or for calculating removals by sinks). It should be noted that the current version of the methodology assumes that land-use change and afforestation are the most significant sinks. However, other sinks might be important and, as indicated in paragraph 18, efforts are being made to identify them for possible inclusion in the methodology. 5/

36. One issue not adequately dealt with in international discussions at present is the allocation of emissions from international marine and aviation bunkers. In the present "CO_2 Emissions from Energy Combustion Module", consumption of bunker fuels is included in national emissions but noted as a separate subtotal to allow for future adjustment, if necessary, to be decided by the COP.

D. Collection, management and reporting of inventory data

37. As paragraph 26 above implies, a central database for the collection, management and reporting of national inventories will advance scientific understanding of the role of greenhouse gases in atmospheric cycles and of the relationship between observed atmospheric changes and anthropogenic emissions sources and sinks, as well as improving the quality of data. Although the system is being developed on behalf of the IPCC, it is the hope of its developers that it may be useful to the COP once the process for reviewing information and its concomitant requirements have been defined. Therefore, its conceptual design places emphasis on flexibility, user-friendliness and compatibility.

IV. POSSIBLE ROLES OF THE SUBSIDIARY BODIES ESTABLISHED BY THE CONVENTION

38. Methodologies for inventories should be adequate, that is, based on the latest scientific and technical knowledge, and resulting data should meet the needs of the provisions of the Convention and its Parties. Technical matters such as emission factors, accuracy of data sources and assumptions, inclusion of additional gases, criteria for transparency, comparability and consistency as well as comparison of reported emission and removal levels against information from other sources, will need to be reviewed. The inventories should also reflect results from joint implementation activities, estimated according to criteria to be developed by the COP (see document A/AC.237/35). As a result, ways of improving the methodologies and their outputs will evolve, especially as far as aggregation of inventory data to establish global trends and evaluation of effectiveness of measures are concerned. The practicability of such methodologies should be evaluated and Parties that experience difficulty in using them should be given guidance. It should be noted that practicability has various implications, for example, relating to user-friendliness or the ability to assess the overall aggregated effects of measures taken to limit greenhouse gas emissions. Given its mandate (Article 9), the Subsidiary Body for Scientific and Technological Advice (SBSTA) is competent to carry out the above-mentioned tasks and may draw upon other bodies such as the IPCC.

39. Inventories will constitute a major part of the information communicated by the Parties that is to be considered by the Subsidiary Body for Implementation (SBI) (Article 10). Data contained in inventories will have to provide that body with the means to assess the overall aggregated effects of the steps taken by the Parties and to review the adequacy of commitments taken by Parties included in Annex I. Reviews of criteria for transparency, consistency and comparability, as well as checking that national data submitted duly take all this into account, may involve the SBI.

40. The central database system being developed by the IPCC may be of relevance to both subsidiary bodies established by the Convention. Therefore close cooperation between the subsidiary bodies and the IPCC might be envisaged (see para. 46 below).

41. It should be noted that to have a comprehensive picture of global emissions and removals of gases that affect climate, emission figures of halocarbons (such as chlorofluorocarbons and carbon tetrachloride) and their substitutes, as well as sulphur oxides would have to be considered when assessing global developments. Some of these gases are monitored through other international agreements, namely, the Montreal Protocol for halocarbons, and the protocols to the Convention on Long-Range Transboundary Air Pollution for sulphur compounds, the latter also providing control of nitrogen oxides. The SBSTA could advise on the treatment of gases not included in national inventories under the Convention.

V. QUESTIONS FOR CONSIDERATION BY THE COMMITTEE

42. The IPCC Programme addresses the technical issues relating to the development of a methodology for national inventories of greenhouse gas emissions and removals. However, in order to prepare for agreement on comparable methodologies in time for COP I, it would be useful for the Committee to consider questions arising from the work of the IPCC relating to national inventories of greenhouse gases. The secretariat has identified some such questions, discussed in the following paragraphs, and in each case some relevant considerations are advanced. These questions are not meant as a critique of the IPCC Programme, but refer to points where this Programme might benefit from input by the Committee. Any conclusions from the Committee's consideration of these questions will be reflected in the report and conveyed to the IPCC.

43. Question 1. **What are the implications if methodologies are not fully developed in time for the first review process under the Convention?** Some guidelines are expected to be finalized by June 1994, others may be available only after COP I. At the present rate of ratifications, Parties included in Annex I should have completed and made available their communications in the second half of 1994. The Committee may wish to consider what the implications are of this transitional situation for the first review of information. In this context, the roles of the subsidiary bodies could be taken up, as appropriate (see documents A/AC.237/33 and A/AC.237/36).

44. Question 2. **Are the requirements for practicability sufficiently taken into account, especially for developing countries?** As described in paragraph 29, the approach taken by the IPCC Programme is built on the principle of categories of sources and sinks, which allows countries to report according to their commitments under Article 4.1, but also takes into account the different levels of sophistication that correspond to the availability of national data, infrastructure, manpower, and so forth. For some gases, simple methods to calculate national emissions and removals are proposed to compensate for the absence of detailed data and methodological know-how. Simplified workbooks providing summaries of all default methods for estimating greenhouse gas emissions and removals will be produced. They will be brief, self-contained, simple instruction manuals providing the necessary information to perform calculations manually and report results. User-friendly computer software will be developed for the most important gases and categories of sources and sinks. The Committee may wish to comment on the adequacy of the approach taken by the IPCC with regard to practicability, especially for developing countries.

45. Question 3. **How can full accessibility to the work of the IPCC be ensured?** Efforts -- of which this note is one -- are being made to increase the information flow between the IPCC Programme and the Committee. The IPCC Programme will be demonstrated during the eighth session of the Committee. Technical documentation is available for interested delegates, who will also have the opportunity of meeting IPCC experts at the session. The secretariat has established close working relationships with the IPCC Technical Support Unit of Working Group I to keep abreast of the progress made by the Programme. Even though a wide network of national experts is involved through the IPCC, members of the Committee may want to make sure that all relevant technical expertise in their countries is taken into account in inventory-related work. The Committee may propose ways to enhance the flow of relevant information from the IPCC to Committee delegations.

46. Question 4. **How can the technical cooperation component be expanded and coordinated with other current training initiatives?** As described in paragraphs 22 to 24, activities of the technical cooperation component of the IPCC Programme include national and regional training workshops and country studies. Efforts are being made to coordinate these capacity-building activities with those carried out by other international organizations and the interim secretariat of the Convention. The Committee may have suggestions to enhance international collaboration concerning training and may also want to encourage bilateral and multilateral donors to provide technical and financial support in order to produce inventories and hold training workshops.

47. Question 5. **Would a system for the central collection, management and reporting of inventory data be of direct use to the COP?** Following up on paragraphs 26, 37 and 39, it can be said that from a scientific/technical point of view, a system for the central collection, management and reporting of inventory data may be used by the SBSTA to assess the state of scientific knowledge relating to climate change and to prepare scientific assessments on the effects of measures taken in the implementation of the Convention. Such a system might also be valuable to the SBI to assess the global effects of steps taken by the Parties pursuant to the Convention, depending on how the information is aggregated for global purposes and how it allows for the tracking of global trends. Furthermore, it would have to satisfy specific requirements under the Convention, such as the provisions on confidentiality. A central system

would indirectly be useful to the COP by providing it with data on which to base overall analyses and assessments of the implementation of the Convention by Parties. If it is felt that such a system is of interest to the COP, the Committee might want to contribute to the development, organization and management of the system. In consideration of this issue, the Committee may wish to address the roles of the SBSTA and the SBI.

48. Question 6. **Should emissions from international marine and aviation bunkers be included in national inventories?** As explained in paragraph 36, the allocation of these emissions among nations has been identified as being problematic. The Committee may therefore consider whether a procedure for allocating such emissions among countries should be established by the COP and, if so, to recommend what that procedure should be.

49. Question 7. **What are the implications of uncertainty before specific categories of sources and sinks can be taken as a basis for policy-making?** Poor record-keeping, lack of statistical information, and limited understanding of the nature and magnitude of sources and sinks lead to overestimating or underestimating emissions. The issue of uncertainty and inaccuracy of inventory data is raised in sections II and III. Uncertainties in emission figures will have to be taken into account when assessing progress towards the objective of the Convention. The IPCC guidelines will provide guidance to minimize and quantify uncertainties in estimating sources and sinks, as far as possible. The Committee may specifically consider the implications of uncertainty for measuring the effectiveness of measures undertaken pursuant to Article 4.2(a) and (b) and when considering criteria for joint implementation.

50. Question 8. **How frequently can national inventories be reported?** The text of the Convention states that inventories shall be periodically updated. However, as inventories are part of the package of information that Parties will communicate in response to Article 12, the frequency of inventory updates cannot be considered in isolation and will have to take into account differentiated timetables as set out in Article 12.5. Yearly inventories are technically feasible but time-consuming and costly; from this perspective differentiated timetables for categories of sources and sinks could be practical. The Committee may therefore consider with what frequency the COP would need to receive these inventories to carry out its tasks.

51. Question 9. **Does the Committee see a need to shift priorities for the next phase of the IPCC Programme?** Efforts have been made to satisfy the requirements for comparable and internationally acceptable methodologies based on the best available scientific knowledge. Proposed reporting conventions and guidelines will provide a language for the comparison of methodologically diverse national estimates and ensure transparency, as countries have the option to prepare their inventories using either the methodology proposed by the IPCC or their own estimation method. The dynamics of the Programme allows for constant improvements in the necessary baseline data and in estimation and reporting methods. The Committee may wish to give an opinion on the approach taken by the IPCC and, if necessary, indicate additional requirements for consideration by the Panel. The Committee may consider whether it sees a need to shift priority for the next phase of the Programme. Suggestions for areas of work could include improvement of the accuracy of methodologies and of the expression of uncertainty, as well as the use of national inventory data to improve global emissions estimates. For example, the letter from the Chairman of the Committee to the Chairman of the IPCC places particular

emphasis on sinks: this matter has already been taken up by the IPCC (see paragraph 18). It should however be realized that the ability of the IPCC to respond to the Committee may be subject to resource constraints.

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Notes

1/ The programme of the IPCC on the development of a methodology for national inventories of greenhouse gas emissions and removals, is usually referred to by the IPCC as the "Programme on the Development of a Methodology for National Inventories of Net Greenhouse Gas Emissions". It is referred to in this note as "the IPCC Programme".

2/ Methodologies to evaluate the effectiveness of measures to limit emissions and enhance the removals of greenhouse gases, as referred to in Article 7.2 (d), and which will rely on inventory data, are discussed in document A/AC.237/36 on review of information.

3/ Progress report submitted on 5 July 1993 by the Chairman of the IPCC to the Executive Secretary for the information of the Committee.

4/ See annex II.

5/ It is important to distinguish between sinks and reservoirs; see Article 1 of the Convention (on definitions). Reservoirs are not included in the IPCC methodology.

Annex I

CURRENT TECHNICAL DOCUMENTATION ON METHODOLOGIES*

1. Intergovernmental Panel on Climate Change. Proceedings of a workshop on national inventories of greenhouse gas emissions and sinks, Geneva, 5-6 December 1991.

2. _____. IPCC guidelines for preparation and reporting national inventories of net greenhouse gas emissions, vol. I: simplified workbook and software. Prepared by the IPCC/OECD Joint Work Programme, Working Group I secretariat, August 1992.

3. _____. Progress report on the IPCC/OECD programme on the development of a methodology for national inventories of net greenhouse gas emissions, IPCC-VIII/Doc. 10, eighth session, Harare, Zimbabwe, 11-13 November 1992.

4. _____. Final report from a workshop on national GHG inventories: transparency in estimation and reporting, parts I and II, Bracknell, 1 October 1992. Prepared by the IPCC/OECD Joint Work Programme on National Inventories of Greenhouse Gas Emissions, IPCC Working Group I secretariat, Bracknell, April 1993.

5. _____. Preliminary IPCC national GHG inventories: in-depth review, part III. Paper presented at an IPCC/OECD workshop on national GHG inventories: transparency in estimation and reporting, Bracknell, 1 October 1992. Prepared by the IPCC/OECD Joint Work Programme on National Inventories of Greenhouse Gas Emissions, IPCC Working Group I secretariat, Bracknell, April 1993.

6. Organisation for Economic Co-operation and Development. Estimation of greenhouse gas emissions and sinks. Final report from OECD Experts Meeting, Paris, 18-21 February 1991. Prepared for the Intergovernmental Panel on Climate Change; revised August 1991.

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*The documents listed may be obtained from:
IPCC national contact addresses or
IPCC secretariat, c/o World Meteorological Organization
Case Postale 2300, 1211 Geneva 2, Switzerland
Telephone: 41 (22) 7308 215/254/284
Fax: 41 (22) 733 1270
Telex: 414199 OMM CH
or
IPCC Working Group I Technical Support Unit
Meteorological Office, Hadley Centre (Rm. H202),
London Road, Bracknell, Berkshire, RG12 25Y, United Kingdom
Telephone: 44 (344) 856615 / 856888
Fax: 44 (344) 856912
Telex: 849801 WEABKA G

Annex II

CATEGORIES OF SOURCES AND SINKS FOR NATIONAL GREENHOUSE GAS INVENTORIES, RECOMMENDED BY THE IPCC PROGRAMME

Source categories/emissions	CO_2	CH_4	N_2O	NO_2	CO	NMVOC[a]
Total (net) national emission						
I. All energy (fuel combustion and production, transmission, storage and distribution						
A. Fuel combustion activities						
energy and transformation industries						
industry (ISIC)[b]						
transport						
commercial/institutional						
residential						
agriculture/forestry						
other						
biomass burned for energy[c]	-					
B. Fuel production, transmission, storage and distribution						
crude oil and natural gas						
coal mining	-		-	-	-	
II. Other industrial production processes (ISIC)						
A. Chemicals	-			-	-	
B. Non-metallic mineral products		-	-	-	-	-
C. Other (ISIC)	-		-	-	-	
III. Solvent and other product use						
IV. Agriculture						
A. Enteric fermentation	-		-	-	-	-
B. Animal wastes	-		-	-	-	-
C. Rice cultivation	-			-	-	-
D. Agricultural soils	-			-	-	-
E. Agricultural waste burning	-					
F. Savannah burning						-
V. Land-use change						
A. Forest clearing						-
B. Conversion of grasslands to cultivated lands		-	-	-	-	-
C. Plantation establishment		-	-	-	-	-
D. Logging/Managed forests		-	-	-	-	-
E. Abandonment of managed lands		-	-	-	-	-
VI. Public service						
A. Landfills	-		-	-	-	-
B. Sewage treatment	-		-	-	-	-
C. Other						

Source: IPCC, "Preliminary IPCC national GHG inventories: in-depth review, part III" (Bracknell, 1983) p. 93.

Notes: A hyphen (-) indicates that the item is not applicable.

[a] NMVOC non-methane volatile organic compounds

[b] ISIC International Standard Industrial Classification

[c] CO2 from biomass burning should be estimated but not included in the energy category total. If net CO2 emissions result (that is, from unsustainable bioenergy use), this will appear in the land-use change category.

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MATTERS RELATING TO COMMITMENTS

CRITERIA FOR JOINT IMPLEMENTATION

Note by the secretariat

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Annex

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I. INTRODUCTION

A. Mandate

1. The work plan adopted by the Committee at its sixth session includes task A.2 "Criteria for joint implementation" (A/AC.237/24, para. 44), which was assigned to Working Group I. At its seventh session, the Committee decided that Working Group I would take up this task at the eighth session. The Committee also indicated that, in the discussion on this item, available material should be reviewed and decisions taken on further work (A/AC.237/31, para. 49). The Committee further decided that Working Group I would consider, as appropriate, the roles of the subsidiary bodies established by the Convention (A/AC.237/31, para. 50).

B. Scope of the note

2. This note is intended to provide the basis for an initial discussion regarding criteria for joint implementation activities, as provided for by Article 4.2 of the Convention, and to encourage delegations to share their views and experiences on the subject. It outlines the concept of joint implementation, as derived from the provisions of the Convention, and suggests possible implications that might need further consideration, as well as considerations on criteria that might help to orient the discussion in the Committee.

C. Possible action by the Committee

3. The Convention calls upon the Conference of the Parties (COP) to adopt criteria, at its first session (COP I), for joint implementation activities (Article 4.2(d)). The Committee may therefore wish to aim at drawing up criteria for consideration by COP I. After a first discussion at its eighth session, the Committee may wish to provide for the preparation of draft criteria for its consideration at its ninth session. The timely availability of criteria proposed by the Committee would provide useful guidance to Parties that are considering joint implementation activities, as well as to interested financial institutions and other organizations. Such guidance would be particularly useful to those Parties included in Annex I of the Convention that want to include information on joint implementation policies and measures in their first national communications under Article 12.

II. CONVENTION PROVISIONS RELATING TO JOINT IMPLEMENTATION

A. The concept of joint implementation

4. The Convention envisages that "efforts to address climate change may be carried out cooperatively by interested Parties" (Article 3.3). More specifically, joint implementation is provided for in Article 4.2(a), which refers to commitments of developed country Parties and other Parties included in Annex I (hereafter, "Annex I Parties") and reads, in part: "each of these Parties shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. ... These Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the

achievement of the objective of the Convention and, in particular, that of this subparagraph" (emphasis added). Article 4.2(d) provides that COP I "shall take decisions regarding criteria for joint implementation as indicated in [Article 4.2(a)]."

5. From the footnote to Article 4.2(a), it appears that joint action decided upon by a regional economic integration organization would be considered as equivalent to national action, and thus not be subject to the criteria for joint implementation which are to be decided upon by COP I. However, bilateral or multilateral actions by Parties that are members of a regional economic integration organization would seem to be within the scope of such criteria.

6. Article 4.2(b) commits each Annex I Party to communicate "detailed information on its policies and measures referred to in [Article 4.2(a)] as well as on its resulting projected anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol for the time period referred to in [Article 4.2(a)] [that is, to the end of the present decade], with the aim of returning individually or jointly to their 1990 levels these anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol" (clarification and emphasis added).

7. The words "individually or jointly" in Article 4.2(b) have been interpreted in this note as referring to the Annex I Parties, thus allowing for joint action by such Parties aimed at returning emissions to 1990 levels. However, these words may also be read as applying to "emissions". Such a reading would constitute a reference to the so-called "comprehensive approach", whereby emission reductions would be assessed for the whole package of greenhouse gases. Since the latter reading seems to be inconsistent with the intent of the negotiators in formulating this particular sub-paragraph, it is not further pursued in this note. The Committee may wish to confirm the interpretation adopted in this note.

B. Different partnerships in joint implementation

8. Different types of partnerships may arise from the pursuit of joint implementation, consistent with the provisions of the Convention. One example could be if a Party included in Annex II of the Convention (hereafter, "Annex II Party") were to provide financial resources bilaterally to an Annex I Party or to a developing country Party for an activity in the latter country that would lead to an avoidance of emissions or to an increase in removals of greenhouse gases. Another such example could be if a private company in an Annex II Party were to invest in a private undertaking in an Annex I Party or a developing country Party with the same objective as in the previous example and with both Parties endorsing this investment.

(a) Joint implementation between Annex I Parties

9. Joint implementation of commitments between Parties included in Annex I is permitted by Article 4.2(a) and 4.2(b). An issue that arises from the latter subparagraph concerns the reference year for assessing the limitation of emissions. Article 4.6 provides for the COP to allow a certain degree of flexibility to those Annex I Parties undergoing the transition to a market economy, including with regard to the reference year. There may be a need for the criteria to be adopted by the COP to distinguish between joint implementation among two or more Annex I

Parties which have accepted 1990 as a reference year and joint implementation involving one or more Annex I Parties which have adopted a different reference year.

(b) Joint implementation between Annex I Parties and other Parties

10. With respect to the possibility of joint implementation between Annex I Parties and other Parties, it may be noted that Article 4.2(a) refers to the joint implementation of "policies and measures". Since all Parties are required by Article 4.1(b) to "implement ... programmes containing measures to mitigate climate change", such measures could, in principle, be implemented jointly between an Annex I Party and any other Party or Parties, subject to the criteria to be decided upon by the COP. However, as Article 4.2(b) contains a specific commitment of Annex I Parties to return their emissions individually or jointly to 1990 levels, the question arises whether joint implementation between Annex I Parties and other Parties should lead to reductions of emissions or increases in removals beyond that commitment. The Committee may wish to give specific attention to this question.

C. Joint implementation and financial assistance

11. Joint implementation activities will give rise to flows of financial resources between the Parties involved, possibly including private investment. However, it is important to distinguish between, on the one hand, joint implementation of measures or commitments, as provided for in Article 4.2(a) and (b), and on the other hand, various kinds of financial and/or technical assistance that may be provided by Annex I Parties to other Parties (as noted by the phrase "may assist other Parties" in Article 4.2(a)) and that Annex II Parties are explicitly committed to provide by Articles 4.3, 4.4 and 4.5. In particular, the financial resources that are covered by Article 4.3, and are to be provided in accordance with Article 11, would appear to be distinct from any public or private financial resource flows for joint implementation activities. In other words, it seems appropriate to conclude that there should be no double counting of financial flows as both financial assistance and joint implementation.

12. A summary table illustrating the distinctions between different types of actions under the Convention is annexed to this note. The table focuses on actions by Annex II Parties, since it may be assumed that these will be the major sources of financial and other resources for joint implementation activities.

III. CONSIDERATIONS RELATING TO CRITERIA

13. The considerations in the preceding section provide a basis for criteria of eligibility under the Convention for joint implementation activities. Additional criteria might be set at the project level, focusing on the relation between a specific activity and the objective, principles and commitments of the Convention. Furthermore, criteria would be needed on accounting and communication of results. The following sections provide some considerations related to these different types of criteria.

A. Criteria at the project level

14. Many factors will need to be considered in evaluating joint implementation activities. Some of these are clearly within the purview of the COP and would be the subject of the criteria referred to in Article 4.2(d). Others seem to be the prerogative of the Parties involved in specific joint implementation activities or projects. It will take time to develop these criteria fully, and the decision process should take into account experience gained by various Parties in seeking opportunities to cooperate in pursuing the objective of the Convention. Some countries are already exploring such opportunities and may be able to share their experience with the Committee. The Committee may wish to give specific attention to the question of which criteria at the project level should be subject to decision by the COP, and which should be left to the discretion of the Parties involved.

15. The Committee may wish to consider whether points such as the following might be elaborated upon for inclusion in a list of draft criteria for consideration by the COP:

(a) How to assess results from joint implementation activities involving two or more Annex I Parties, when not all have chosen 1990 as the reference year for emissions;

(b) The date of initiation of a joint implementation activity (for example, prior to or subsequent to the adoption of the Convention), as a criterion to determine whether the activity might be considered as a response by the Parties involved to the provisions of the Convention;

(c) The need to consider the full cycle of processes involved in a project, with the aim of ensuring that it does not merely result in the displacement of emissions from one project to another, or from the Party where the project is located to another country (whether Party or non-Party);

(d) The contribution of the project to other specific commitments and aims of the Convention, such as strengthening endogenous capacities, consistent with Article 4.5.

16. These examples are illustrative. Full development of a list of possible criteria for consideration by COP I should be based on discussion and input by the delegations to the Committee.

17. In addition, the Parties involved in a joint implementation project will presumably wish to examine a number of additional factors bilaterally, for example:

- national priorities of the host Party, including the relationship of the project to national sustainable development aims, such as aims in the sectors of energy, transport, industry, agriculture, forestry, waste management, trade, infrastructure and capacity-building;

- cost-effectiveness of the project as compared with alternative investments by the investing Party;

- cost per tonne of carbon-equivalent emissions reduced or captured relative to alternatives, particularly in the investing Party.

18. Consideration of factors such as these could be left to the collaborating Parties, either individually or in cooperation with each other. Consequently, the COP would not adopt criteria relating to such factors but may invite the Parties concerned to include such considerations in their national communications on a voluntary basis.

19. The Parties involved in a joint implementation activity should consider how it would relate to other social, economic and environmental goals, consistent with Article 4.1(f). The COP may wish to consider whether any criteria developed in accordance with Article 4.2(d) should address this question or whether it should be left to the individual Parties involved.

B. Criteria related to methodologies and accounting procedures

20. It may be assumed that in establishing criteria for joint implementation and reviewing the results of such efforts as part of its broader review of implementation of the Convention, the COP would seek to ensure that all baseline emissions (in the case of Annex I Parties) and all emissions reductions described in the Parties' communications are calculated according to consistent methodologies. The methodologies used to calculate the results of joint implementation measures outside a Party's territory should be the same as those used for national measures within its territory. Such methodologies are to be agreed by COP I, in accordance with Article 4.2(c) and Article 7.2(d). It is anticipated that these methodologies will evolve over time and be reviewed and updated regularly by the COP. (Document A/AC.237/34 addresses the establishment of methodologies for the calculation of emissions and removals in relation to the Convention; document A/AC.237/36 relates to the broader review process.)

21. Parties cooperating in a joint implementation activity may wish to designate one part of the total emissions limitation to be attributable to one of the Parties and the remainder to the other Party. However, such a division of the total limitation does not appear to be required explicitly by the language of the Convention and would be at the discretion of the Parties involved. Any indication of a "credit" or "attribution" to one or more of the Parties should not be interpreted as creating any commitments beyond those currently contained in the Convention.

22. The COP may want to prescribe a limit on the time span for calculating emission limitations or increases of removals arising from a joint implementation activity. Otherwise, the ability of the host Party to claim future credit for emission limitations or removals might be unduly curtailed.

C. Communication of results of joint implementation activities

23. As noted in section II, Article 4.2(b) calls on each of the developed country Parties included in Annex I to communicate detailed information on its policies and measures referred to in Article 4.2(a), as well as on its resulting projected emissions by sources and removals by sinks of greenhouse gases. The time period for the projections would be from 1990 until the end of the decade (that is, the year 2000). Article 12.2(a) and (b) essentially repeats the obligation to communicate this information.

24. Article 12.8 states that "any group of Parties may ... make a joint communication in fulfilment of their obligation under [Article 12], provided that such a communication includes information on the fulfilment by each of these Parties of its individual obligations under the Convention." Such communications will be subject to guidelines adopted by the COP and to prior notification to the COP. Thus, Parties cooperating in joint implementation may communicate the results of such cooperation either individually or jointly, subject to guidance provided by the COP.

25. Article 4.2(b) commits each Annex I Party to communicate information on policies and measures adopted according to Article 4.2(a). The latter refers to each Annex I Party limiting its emissions and protecting and enhancing its greenhouse gas sinks and reservoirs. It may therefore be assumed that each Annex I Party will communicate information on those policies and measures applied regarding emissions, sinks and reservoirs within its territory. The same Article 4.2(b) also refers to its resulting projected anthropogenic emissions by sources and removals by sinks" and to the aim of returning individually or jointly to their 1990 levels "these anthropogenic emissions" (emphasis added). Therefore, the communication on the projected and resulting emissions to the year 2000 would also appear to be for emissions originating in the Party's own territory.

26. The effects of policies and measures implemented jointly with another Party would presumably be described in a separate part of the Annex I Party's communication. The total contribution of the latter Party to the global effort referred to in Article 4.2(a) regarding the Convention objective of stabilizing atmospheric concentrations of greenhouse gases would be the sum of all results of its efforts, within and outside its territory, to limit emissions and protect and enhance sinks and reservoirs. The Party's contributions regarding financial and technical assistance, cooperation on science, observation and monitoring, research, and public education and the like could also be listed, but separately, and would complete the description of the Party's total effort to respond to climate change.

27. For completeness, and to avoid any possibility of double counting of emissions limitations, each Party involved in a joint implementation project may have to describe the results of the project in a separate section of its communication. The COP, or the Subsidiary Body for Implementation on its behalf, could then compare what has been communicated by each Party involved, to assure consistency. This would imply that a developing country Party that was not yet required to communicate under Article 12.5 would do so on this aspect alone.

IV. PROCESS AND INSTITUTIONS

28. As Parties begin to seek opportunities to cooperate with other Parties in joint implementation projects, there may be a need for certain arrangements and procedures under the auspices of the Convention, for purposes of both consistency and efficiency. Such arrangements would need to take into account the possible role of private investors in joint implementation projects. The institutional framework for joint implementation should be consistent with the provisions of the Convention, and with any agreed distinction between joint implementation and other forms of implementation, including the implementation of financial commitments.

29. Initially, some kind of "clearing house" for information about possible projects could be useful in helping potential partners identify opportunities for joint implementation. This should be coordinated with relevant activities under the COP including those of the subsidiary bodies. Consistent methodologies agreed by the COP should be the basis for project evaluation, as well as for communication of the results of the joint implementation.

Annex

Possible actions by Annex II Parties involving other Parties[a]

	Partners		
	Other Annex II Parties	Other Annex I Parties	Developing country Parties
Type of action			
A. Policies and measures (Art. 4.1, Art. 4.2(a) Art. 4.2(b))			
A.1 National	-	-	-
A.2 REIO*	Yes	-	-
B. Joint implementation			
B.1 Art. 4.2(a)	Yes	Yes	Yes
B.2 Art. 4.2(b)	Yes	Yes	-
C. Finance and technology transfer			
C.1 (Art. 4.3)	-	-	Yes
C.2 (Art. 4.4)	-	-	Yes
C.3 (Art. 4.5)	-	Yes	Yes
D. Communication of information (Art. 12)	Yes	Yes	Yes

[a]This is an illustrative table, not intended to imply a judgement on the nature and extent of different financial commitments under the Convention.

"Yes" indicates that the item is applicable.

A hyphen (-) indicates that the item is not applicable.

*REIO regional economic integration organization

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